An Evaluation of Working Capital Management of Select Cement Industrial Units in Tamilnadu

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Abstract
In this paper examine working capital position of the select cement industrial units between 2000-01 and 2009-10. The five cement companies, four private owned and one Government owned are considered for the study. Results of the analysis reveals that Regarding efficient management of working capital in the business, the Madras cements, Chettinad cement and TANCEM were found to have efficiently managed working capital during the period. But when all companies were pooled together, working management efficiency was found to be at moderate level.

Keywords--- Long-term solvency, Short-term solvency, Gearing, Coefficient of Variation (CV), Compound Growth Rate (CAGR) and Linear Growth Rate (LGR).

I. INTRODUCTION
The net working capital turnover ratio is used to compare the depletion of working capital to the generation of sales over a given period. This provides some useful information as to how effectively a company is using its working capital to generate sales. A company uses working capital (current assets - current liabilities) to fund operations and purchase inventory. These operations and inventory are then converted into sales revenue for the company. The working capital turnover ratio is used to analyze the relationship between the money used to fund operations and the sales generated from these operations. In a general sense, the higher the working capital turnover, the better because it means that the company is generating a lot of sales compared to the money it uses to fund the sales.

II. REVIEW OF LITERATURE
Many of the research works have been conducted, over the period to evaluate working capital position of the select cement industrial units in Tamilnadu with the help of the various ratios. Sarker and Saha (1987) stated the pattern of working capital financing in public sector units as low percentage of cash credit to working capital finance. The company enjoyed long credit period from its suppliers which, instead of being a sign of strength, may very well be constructed as a sign of weakness of the company. The funds from long term source like equity/long term loans were liberally available to finance, besides fixed assets investment, current assets investment of the company. Therefore, the management of working capital in the company had been risk free. [1]Garai and Mallik (1988) stated that the role of working capital looked from the other side of the ratio of fixed capital in total capital employed. The income generation process of an industry in studied by taking this ratio as a regressor in non-linear regression model. From their results of the analysis of cross-sectional data for all States and Union Territories of India for 6 industries for 3 years, it was found that this ratio plays an important role in income generating processes and an optimum value for this ratio (0.48) may be obtained.[2]

Panda and Satapathy (1988) studied various aspects of working capital of cement companies by covering 10 private sectors company engaged in production of cement. They found that cement companies utilized of various components of working capital in better way.[3]Jain (1991) in his article focusing on the importance of working capital, working capital cycle, determinants, optimum level and components of working capital, concluded that all precautions should be taken for the efficient and effective management of working capital. The financial manager should pay special attention to the levels and financing of each components of working capital.[4] Banerjee and Hazra (1992) studied the amount, importance, variation, sources, components and estimation of working capital in Grasim Industries Limited for a period of 5 years from 1985-1990. They used the tools like percentages, averages, ratios, trend analysis and linear regression. They concluded that investment in working capital was moderate and an increase in dependency of long term finance as source, high variation in working capital, investment in outside trade and steep increasing trend in working capital was not reflected in the trading results of the company.[5]
III. STATEMENT OF THE PROBLEM

Managing solvency efficiently is much for an organization to achieve a systematic and sustainable growth in order to keep its identity for longer time period. The most widely emphasized goal a business organization is to maximize its value to its owners which is the driving force to make the organization successful. This is possible only when, it has sufficient financial resources to meet the long term and short term requirements. That is, funds are invariably required to carry on the various activities of a business which should be pursued on fulfilling the firm’s long-term and short-term obligation. To meet long term commitment, a firm needs sufficient long-term assets and it needs short-term assets, i.e., current assets, enough to cover its short-term commitment. So, analyzing a firm’s power of repaying all its commitments (liabilities), either long-term or short-term through is of much importance for the investors as well as for the business organization. So, the present research work is undertaken.

IV. OBJECTIVES OF THE STUDY

The present research work is carried out with objective of finding out the working capital position of the select cement industrial units in Tamil Nadu, India.

V. METHODOLOGY

SAMPLE

As on 31st March 2010, there are 14 cement industrial units and 4 grinding units registered in Tamilnadu of which one company belongs to the Public Sector (2 Industrial Units) and 16 are Private Sector Cement Industrial Units. The present study is restricted to 14 cement industrial units which constitute 5 leading cement companies in Tamilnadu Viz., Chettinad Cement Corporation Limited, Dalmia Cement (Bharat) Limited, India Cements Limited, Madras Cements Limited, and Tamilnadu Cements Corporation Limited. The sample of companies has been selected based on a convenient basis.

PERIOD OF THE STUDY

The period of the study is 10 years from 2000-01 to 2009-10. The reason for confining the study to this period is the availability of the latest audited data in the government publications and various websites.

DATA

The data for present study is Balance sheet and Profit & Loss accounts of the sample companies for the periods under study. The required data were gathered from various annual reports of the companies.

DESIGN

Working Capital of Select Cement Industrial Units is evaluated on the basis of ratio analysis. Net Working Capital Turnover Ratio has been used for the analysis. A brief explanation of above ratio is given below:

The net working capital turnover ratio is used to compare the depletion of the working capital to the generation of sales over a given period. In a general sense, the higher the working capital turnover, the better because it means that the company is generating a lot of sales compared to the money it uses to fund the sales. The formula for calculating this ratio is

\[
\text{Net Working Capital Turnover Ratio} = \frac{\text{Sales}}{\text{Current assets} - \text{Current Liabilities}}
\]

The trend and growth in working capital turnover ratio for the select cement industrial units are evaluated and discussed hereunder. Table 1 presents the status of net working capital turnover ratio for Chettinad cement.

VI. RESULTS AND DISCUSSION

As presented in the table, the Net working capital, Rs.50.03 crore in 2000-01, showed a crisscross trend before reaching Rs.608.19 crore in 2009-10 at a significant CAGR of 34.29 per cent (t-value = 7.81, p <
and LGR of 56.06 crore (t value = 4.63, p < 0.01) on an average every year. Net working capital turnover ratio, 3.70 times in 2000-01, reached as high as 6.28 times in 2002-03 before falling down to 2.23 times in the last year. On the whole during the period of study, the growth and trend in net working capital turnover ratio is negative but not at a level to mentioned. Chettinad cement has converted its available short-term resources into sales and back to cash after investing in inventories 4.16 times in a year on the average.

Table 2 shows the net working capital turnover ratio for Dalmia cement for the years from 2000-01 to 2009-2010 under study. According to the table there had been a significant uptrend and growth in net working capital during the period. The net working capital, which stood at Rs.343.74 crore on the average, reached Rs.472.95 crore in 2007-08, Rs.526.14 crore in 2008-09 and finally reached Rs.899.77 crore in the last year after hovering between Rs.177.59 crore and Rs.252.48 from 2000-01 to 2006-07. The rate of growth when compounded annually was significant at 16.03 per cent and linear rate, i.e., absolute average increase ever year was significant at Rs.60.15 crore for net working capital of Dalmia cement. The net working capital turnover ratio, 1.67 in the beginning increased to 2.18 times in 2002-02, became 2.26 times in 2005-06 after dropping to 1.74 times in 2003-04 and 1.85 times in 2004-05.

An examination of table 3, which presents the status of net working capital as well as net working capital turnover ratio for India cements, is understood to have a significant growth (CAGR = 4.01, t = 2.53, p < 0.05) and uptrend (LGR = 49.73, t = 2.52, p < 0.05) in net working capital, despite ups and downs during the period. On the average, the net working capital is Rs.1161.63 for India cements. From the comparison of CV of net working capital (19.48) with that of sales (56.27), it is apparent that the trend in net working capital is more consistent than that of sales. The net working capital turnover ratio, on the other hand, was hanging from 0.92 times to 1.72 times between 2000-01 and 2006-07. This indicated that it took almost a year for India cements to convert the sales into cash after pumping its short-term sources after paying the debtors into inventory and inventory into sales during those years. However, net working capital turnover ratio jumped up to 2.47 in 2007-08, 3.12 times in 2008-09 but dropped to 2.15 times in the last year. Overall, the growth and trend in net working capital turnover ratio has been significant (CAGR = 13.29, t = 4.93, p < 0.01 & LGR = 0.21, t = 4.24, p < 0.01). The net working capital ratio of 2 times and above in the last three years along with significant growth and trend reveal that India cements, though could use its short-term resources only once a year for generating sales and convert the sales into cash initially, it finally succeeds in improving its efficiency of managing the net current assets.

Table 4 depicts the results of the analysis eliciting the status of net working capital turnover ratio for Madras.
cements. As shown in the table, there had been ups and downs in the net working capital up to 2005-06 from 2000-01. But net working capital Rs.370.95 crore in 2006-07 increased to Rs.488.47 crore in 2007-08, Rs.578.44 crore in 2008-09 and Rs.709.19 crore in 2009-10.

Overall, the net working capital grew significantly at CAGR of 25.03 per cent (t value = 6.08, p < 0.01) and LGR of Rs.66.84 crore (t value = 5.71, p < 0.01). Though there was a significant growth and trend in sales and net working capital, net working capital turnover ratio of Madras cements did not show any notable improvement over the period. The net working capital turnover ratio, 5.05 times on the average, fluctuated between 4.12 times (2007-08) and 7.06 times (2005-06) during the period. So, Madras cements was very quick in converting its sales into cash using its net current assets 5.05 times in a year on the average. This reveals that Madras cements is very efficient in using its net working capital for generating sales.

It is seen from the above table that the net working capital was positive and ranged between Rs.29.73 crore (2008-09) and Rs.89.32 crore (2003-04) in all years except in 2001-02. In 2001-02, it was negative at -6.18. On the average, the net working capital was Rs.60.59. The growth and trend in net working capital of TANCEM was negative and marginally significant when negative net working capital in 2001-02 was not considered (CAGR = -7.19, t = -2.27, p < 0.10 & LGR = -4.04, t = -2.26, p < 0.10).

The net working capital turnover ratio was more than two times in all years from 2000-01 to 2006-07 except in 2001-02 and 2003-04. While net working capital turnover ratio was negative in 2001-02 (due to negative net working capital), it was 1.86 times (< 2 times) in 2003-04. The net working capital turnover ratio was between 3.04 times and 5.96 in the last three years. On the average, net working capital turnover ratio was 3.07 times and exhibited a positive growth at the compound rate of 11.36 per annum and also a significant and positive trend at slope coefficient of (linear rate) 0.39 times on an average every year. The CV values showed that both net working capital and net working capital turnover ratio was less inconsistent than those of sales. Overall, it was found that TANCEM was somewhat efficient in using its net working capital fund for generating sales during the period under study.

Table 6 presents the net working capital, net working capital ratio, CAGR and LGR values along with t-value identifying the statistical significance of the growth rates for the pooled cement companies for the period under study.
It is observed from the above table that the total net working capital of all five cement companies (13 cement industrial units), being Rs.2048.63 crore on the average, increased from Rs.1543.36 crore in 2000-01 to Rs.3974.27 crore in 2009-10 significantly at the compound rate of 10.92 per cent per annum and linear rate of Rs.232.55 crore on an average every year. The net working capital turnover ratio was below two times for 5 years from 2000-01 to 2004-05 (ranged between 1.66 times and 1.80 times). This revealed that there was only one working capital cycle (from sourcing the fund into inventory, inventory into sales and sales into cash after paying out the debtors) for the select cement industrial units when combined together from 2000-01 to 2004-05. But, there was an improvement in using working capital for generating sales from 2005-06 to 2009-10. Overall, the net working capital turnover ratio, 2.24 times on the average, increased significantly at the CAGR of 8.16 per cent and LGR of 0.18 times to stay at 2.58 times in the last year from 1.68 times in the beginning. On the whole, it was found that all cement companies when pooled together were moderately efficient initially but improved remarkably in respect of using working capital efficiently for generating sales later on.

The working capital turnover ratios are compared between any two pairs of cement companies selected for the study using t-test for independent sample. The results of the analysis are shown in table 4.51. From the table, it is apparent that working capital turnover cycle, 4.16 times on the average for Chettinad cement is significantly better than those of all other cement companies except Madras cements. For Madras cements, the cycle has been 5.05 times a year and it does not differ from that of Chettinad cement (t-values are insignificant). That is, the working capital turnover cycle is significantly better in Chettinad and Madras cements than the working turnover cycle in Dalmia cement, India cements and TANCEM.

**VII. CONCLUSION**

Regarding efficient management of working capital in the business, the Madras cements, Chettinad cement and TANCEM were found to have efficiently managed working capital during the period. But when all companies were pooled together, working management efficiency was found to be at moderate level.

**REFERENCES**

**BOOKS**


